

CANISTERED ANODE

Application

CTS supply MMO coated anodes pre-packaged in galvanised steel canisters for use in distributed or surface groundbeds.

Description

The anode consists of a proprietary mix of Iridium and Tantalum oxides on a Titanium substrate conforming to ASTM specifications. The canister is of 0.8mm gauge galvanised steel construction and the centralised anode is backfilled with carbonaceous backfill which extends the anode life and increases the output parameters of the anode. The tubular construction allows a low resistance centre connection to be made with any cable suitable for the final environment.



Availability

The following table gives recommended maximum Anodes Outputs for different sizes of anode.

| Anode Size (mm) | Current Output (Amps) | Operating Life (Years) |
|-----------------|-----------------------|------------------------|
| 25 x 500 | 4 | 20 |
| 25 x 1000 | 8 | 20 |
| 32 x 1220 | 12 | 20 |

It is possible to achieve a longer life by increasing coating density or reducing anode current density.

Anodes are available in 19, 25 and 32mm diameter as standard with lengths up to 1.2m.

Canister

Canisters are available in a number of sizes as follows:

| Canister Material | Diameter (m) | Length (m) | Coke Breeze (kg) |
|-------------------|--------------|------------|------------------|
| Gavanised Steel | 0.15 | 1.0 | 21 |
| Galvanised Steel | 0.20 | 1.5 | 56 |
| Galvanised Steel | 0.20 | 1.8 | 67 |
| Galvanised Steel | 0.25 | 1.5 | 87 |

Other sizes available as required.

Cable

CTS also supply cable options to suit local conditions. The most commonly used being

| Cable Type | Environment |
|--|---|
| XLPE/PVC or HMWPE | Soil |
| HMWPE/KYNAR, HMWPE/HALAR or PVDF Single Sheath | Aggressive environment containing chlorides |



Anode lead cable to anode connector is center connected to ensure low connection resistance (<0.001 ohm). All anode connections are resin sealed and resistance checked.

Quality Assurance

Strict quality procedures are followed throughout the anode coating process to ensure proper adhesion and loading. Each batch is subjected to thorough testing including:

- Review of Mill certs for Titanium substrate (ASTM B338 Grade 1 or 2)
- Accelerated life testing in 150g/l H₂SO₄ at 15000A/m²

Health and Safety

The MMO coating and substrate are not considered to release hazardous chemicals during normal use. No MSDS is therefore required.

MSDS are available for the carbonaceous backfill materials.

Disclaimer

The information provided in this document was accurate at the time it was published, however, we reserve the right to revise this document without prior warning.